

STATUS OF THE MASKED SHRIKE *Lanius nubicus* IN BULGARIAStatus zakrinkanega srakoperja *Lanius nubicus* v BolgarijiDIMITAR DEMERDZHIEV¹ & STOYCHO STOYCHEV²¹ BSPB/ BirdLife Bulgaria, 31, Bulgaria Blvd., Asenovgrad BG-4230, Bulgaria, e-mail: d_demerdzhiev@abv.bg² BSPB / BirdLife Bulgaria, P.O.Box 130, Haskovo BG-6300, Bulgaria, e-mail: stoychev.s@gmail.com

The data on the status of the Masked Shrike *Lanius nubicus* in Bulgaria is summarized. The research carried out by the authors and literature data for the periods 1963-1990 and 1991-2005 on the map of Bulgaria with UTM squares are presented. The northward and westward expansion of the species' breeding range is quite obvious, e.g. along the Maritsa River. The authors estimate the population of the Masked Shrike in Bulgaria to be 600-800 pairs.

Key words: Masked Shrike, *Lanius nubicus*, Bulgaria, status, distribution, population trends, areal expansion

Ključne besede: zakrinkani srakoper, *Lanius nubicus*, Bolgarija, status, razširjenost, populacijski trendi, širitev areala

1. Introduction

The Masked Shrike *Lanius nubicus* is distributed over the Balkans (Bulgaria, Greece, Macedonia) and in Turkey, Cyprus, the Near East (Syria, Lebanon, Israel, Jordan), northern Iraq, western Iran, probably southern Turkmenistan, and north-western Afghanistan (CRAMP & PERRINS 1993, LEFRANC & WORFOLK 1997). In Europe its population is greatest in Cyprus (4,000-10,000 pairs). The Turkish population is estimated at 30,000-90,000 pairs, located mainly in the Asian part of the country. The rest of the population is in Greece (500-2,000 pairs), Macedonia (100-150 pairs) and Bulgaria (50-100 pairs; as estimated in BIRDLIFE INTERNATIONAL 2004).

In Bulgaria, the species was first reported in 1963 in the Eastern Rhodope Mountains, near the village of Gorna Kula, Kroumovgrad region (MAUERSBERGER & STUBBS 1963, DONCHEV 1964). Breeding was proven in 1976 in the Malashevskia Mountains (VATEV *et al.* 1980). Isolated sightings of the species in various areas of the country are reported in the works of PASPALEVA-ANTONOVA (1965), NANKINOV *et al.* (1979), PETROV (1981, 1987 & 1988), SCHUBERT & SCHUBERT (1982), LAMBUROV (1985), UHLIG (1984), SIMEONOV (1986), SIMEONOV & BAEVA (1988), NANEV (1988), SPIRIDONOV & SIMEONOV (1988), IANKOV (1991),

MILCHEV (1994), STOYCHEV (1997) and MILCHEV & KOVACHEV (1998). NANKINOV (2001) made an overview of the existing information on the distribution and added some new data. DEMERDZIEV *et al.* (2007) made a partial overview of the status of Masked Shrike in Bulgaria in the new Atlas of Breeding Birds in Bulgaria.

The aim of the present work is to present all the existing data on Masked Shrike in Bulgaria.

2. Methods

Field studies were carried out in the period 1992-2005. The transect method (BIBBY *et al.* 1999) was used and transects were set in various typical habitats of the species — riparian forests, poplar *Populus* sp. and orchard plantations along river valleys, and open oak *Quercus* sp. forests in plains and mountain foothills. The degree of breeding reliability was described with the methodology of HAGEMEIJER & BLAIR (1997). The birds were recorded with visual and sound identification at distances of 0-25 m and 25-50 m, and by visual identification only at distances of 50-100 m. The transects were of different length, depending on the availability or lack of suitable habitats.

Altogether, 17 transects were done to cover a total length of 127 km. They were studied once during

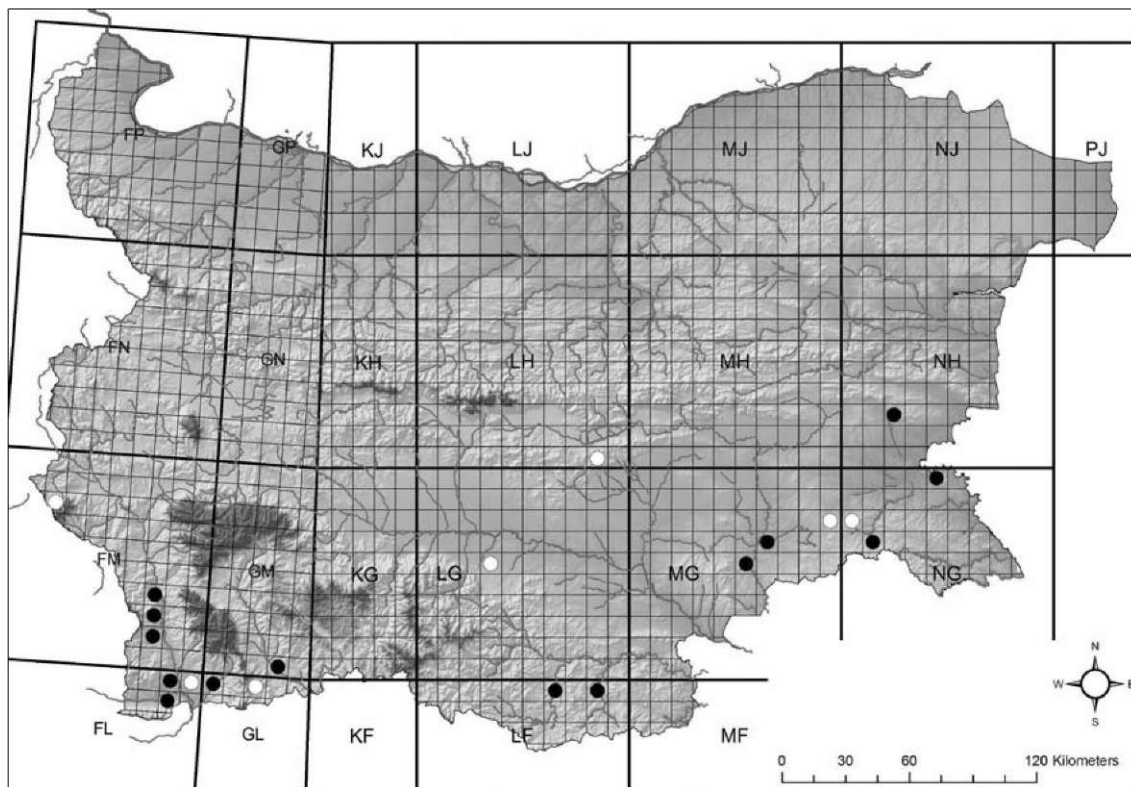


Figure 1: Breeding distribution of the Masked Shrike *Lanius nubicus* in Bulgaria in the period 1963-1990; black circles indicate certain breeding, white circles indicate possible breeding. Circles indicate at least one pair.

Slika 1: Gnezditvena razširjenost zakrinkanega srakoperja *Lanius nubicus* v Bolgariji v obdobju 1963-1990; polni krožci ponazarjajo zanesljivo gnezdenje, prazni pa morebitno gnezdenje. Krožci označujejo najmanj en par.

the breeding season (15 May-15 Jun) in the period 2003-2005, and seven of them, covering a length of 49 km, were studied twice, the second time being in July. In calculating the breeding density, only the data in a 100 m belt (up to 50 m on either side of all transects) was taken into account. The density was calculated as the absolute number of birds recorded along all transects in a particular habitat, divided by the transect area. We used this method in order to ensure that this density would be the minimum of the real one.

In addition, the present article includes the data gathered by various field trips of the authors in the period 1992-1999.

3. Results

The species breeds in the southern part of the country. The breeding localities are found from sea level up to 387 m a.s.l. In the Upper Thracian lowland the species is found mainly along the middle and lower

reaches of the Maritsa River and some of its tributaries (UTM LG17, LG36, LG45, LG46, LG55, LG56, LG66, LG76, LG85, MG04, MG13, MG14, MG22, MG23, MG32), as well as on the lower reaches of the Tundja River (MG55, MG64, MG66, MG67), particularly on sites of the northern foothills of the Rhodope Mountains (LG35, LG44). It is well represented in the Sakar Mountains (MG24, MG33, MG35, MG36, MG43, MG46, MG53, MG56). Also, the species was found along the lower reaches of the Struma and Mesta rivers, including their tributaries (FM70, FM72, FM80, FL88, FL89, FL90, GM20, GM21, GM30, GL29, GL39). The Masked Shrike has a patchy distribution in the Western Strandja Mountains (MG88, MG97, NG07, NG16, NG19) and Eastern Rhodope Mountains (mainly along the valleys of the Krumovitsa and Arda rivers, from the Studen Kladenets dam to the vicinities of the town of Madjarovo and the Byala Reka River (MF18, MF28, LF89, LG70, LG80, MG01, MG11).

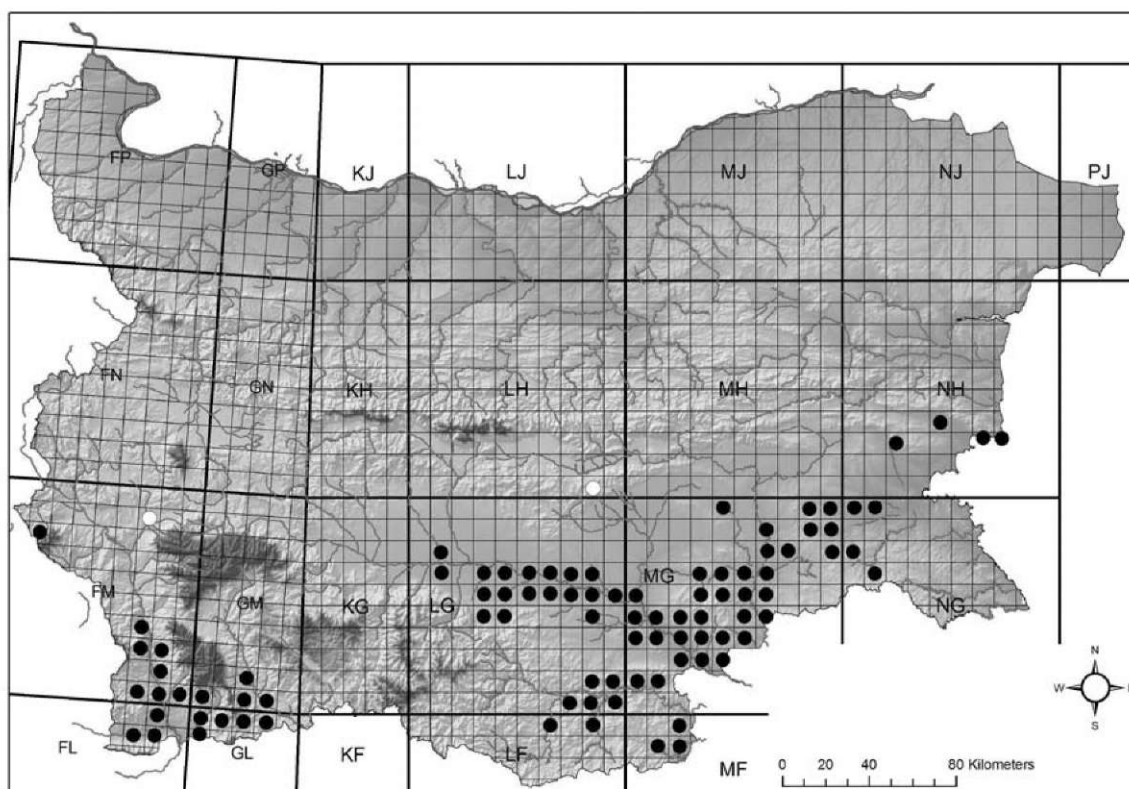


Figure 2: Breeding distribution of the Masked Shrike *Lanius nubicus* in Bulgaria in the period 1991-2005; black circles indicate certain breeding, white circles indicate possible breeding. Circles indicate at least one pair.

Slika 2: Gnezditvena razširjenost zakrinkanega srakoperja *Lanius nubicus* v Bolgariji v obdobju 1991-2005; polni krožci ponazarjajo zanesljivo gnezdenje, prazni pa morebitno gnezdenje. Krožci pomenijo najmanj en par.

The species is territorial, forming loose colonies in suitable habitats. We determined a density of up to 3 pairs per 1 ha in poplar cultures along the Maritsa River and its tributaries, as well as in a riparian high-stemmed forest of Ashes *Fraxinus* sp. in the Maritsa river valley. The species had a lower density of up to 2 pairs per 1 ha in forests of Downy Oak *Quercus pubescens* and Hungarian Oak *Quercus frainetto* in the Thracian lowland, and in the Sakar and Strandja Mountains.

We are able to make some arbitrary claims about the species' habitat. In lowlands it nests in riparian poplar *Populus* sp. trees along the Maritsa and Tundja rivers and their tributaries, as well as along the Krumovitsa and Byala Reka rivers. It is less numerous in riparian patches of willow trees *Salix* sp., False-acacia *Robinia pseudacacia*, and lowland woods of ashes *Fraxinus* sp. The species was also found in coppiced Downy Oak and Hungarian Oak forests, sometimes with bushes, preferring wood outskirts, orchards, plantations of Walnuts *Juglans regia*, and almonds *Amygdalus* sp.

In the mountain foothills we found the species to inhabit open oak *Quercus* sp. woods, Mediterranean type shrub vegetation, represented by Greek Juniper *Juniperus excelsa*, Prickly Juniper *Juniperus oxycedrus*, and Christ's Thorn *Paliurus spina-christi*. The Masked Shrike was also recorded in town parks and private yards in villages ("Kenana" Park in the town of Haskovo, the park of the town of Dimitrovgrad, and two private yards in the village of Levka, Southern Sakar Mountains).

Our research and literature data for the periods 1963-1990 and 1991-2005, on the map of Bulgaria with UTM squares, are presented jointly in Figures 1 and 2.

4. Discussion

In Bulgaria the species was first reported in 1963 in the Eastern Rhodope Mountains, near the village of Gorna Kula (MAUERSBERGER & STUBBS 1963, DONCHEV 1964). Later, single pairs or individuals were also found during

the breeding season in other parts of southern Bulgaria: the Belasitsa Mountains (PASPALOVA-ANTONOVA 1965), the Sredna Gora Mountains (PETROV 1981), the Eastern Rhodope Mountains (SCHUBERT & SCHUBERT 1982, IANKOV 1991), the Sakar Mountains (LAMBUROV 1985, MILCHEV & KOVACHEV 1998, STOYCHEV 1997), the Pirin Mountains (SIMEONOV 1986, SPIRIDONOV & SIMEONOV 1988), the Western Rhodope Mountains (PETROV 1987 & 1988), the Ograzhden Mountains (SIMEONOV & BAEVA 1988), and the Strandja Mountains (MILCHEV 1994, NANKINOV 2001). Breeding of the species was registered in 1976 in the Malashevka Mountains (VATEV *et al.* 1980, ROBERTS 1980). During the decades after the first record of the Masked Shrike in Bulgaria in 1963, there were mostly occasional sightings of the species. Most likely in the early 1990s, the population of the Masked Shrike started to increase, and expansion of the species' range was recorded (Figures 1 & 2).

During our current study the species was found in many new localities and increase in the number of the breeding pairs was recorded in some of the previously known localities. Since 1990 we have recorded certain breeding of the Masked Shrike in 91 UTM squares in total. DEMERDZHIEV *et al.* (2007) recorded certain breeding in 34 UTM squares. Although the study period of this current work partly coincides with that of the Atlas of the Breeding Birds in Bulgaria, it should be taken into account that the data on the Masked Shrike published in the Atlas refers mainly to the period 1990-2003. The data gathered in the period 2003-2005 sheds new light on the development of the species' areal and population. Therefore, the population estimate of 200-350 pairs reported by DEMERDZHIEV *et al.* (2007) was underestimated.

The northward and westward expansion of the species' breeding range is quite evident. The increase of the numbers and the expansion of the species range are evident along the Maritsa River. In the 1960s and 1970s the species was not registered there, despite the ornithological studies (BOEV *et al.* 1964). In the period 1990-1995, individual birds and pairs were observed, as the westernmost locality was reported to be the village Vinita - 37 km southeast from the city of Plovdiv along the Maritsa River. Since the year 2000, the Masked Shrike was established as breeding species 40 km northwest from that point and there have been groups of more than ten pairs in many sites along the Maritsa River and its tributaries. There is also clear evidence of an increase in the population in the Sakar Mountains. The species was not found there by BOEV *et al.* (1964). The first observation in

the Sakar Mountains was in 1983 (LAMBUROV 1985) — a pair with three juveniles. The species was not recorded during the detailed study on birds in the south-western part of the Sakar Mountains carried out in 1984-1987 (BORISOV 1988). The first sightings of the species in the area studied by BORISOV (1988) were made in 1991 (STOYCHEV 1997). Five to ten breeding pairs bred in the same area after 1997. It is possible that some pairs bred irregularly in the southern part of the Thracian plain and remained unrecorded by BOEV *et al.* (1964) and BORISOV (1988). Also, the species was not registered during the annual ornithological boat expedition along the Maritsa River carried out in May in the period 1986-1994. It was recorded for the first time during the expedition in 1995 (B. BORISOV, *pers. comm.*). It reaches the Sredna Gora Mountains (PETROV 1981, YANKOV *et al.* 2003) to the north (LH80). The same kind of expansion was found in neighbouring Macedonia along the rivers Vardar and Pčinja (VELEVSKI 2001).

The species is rarely found along the Black Sea coast, reaching the area of the cape of Emine and the foothills of the Eastern Balkan Mountains, where the northernmost proven breeding site of the species is Poroy village (NH43) (L. PROFIROV, *pers. comm.*). NANKINOV (2001) suggests the Danube River as the northern border of the species breeding range. However, since there are no data about breeding in the northern part of Bulgaria, we consider the Balkan Mountains as the northern edge of the species' areal. The single bird observed some twenty kilometres from the Danube on 18 Jul 1986 (STANCHEV 1988) was probably a vagrant individual.

Till the mid 1990s, the Masked Shrike population in Bulgaria was estimated to be about 100-300 pairs (KOSTADINOVA 1997). NANKINOV *et al.* (2004) and NIKOLOV *et al.* (*in print*) accept an estimate of 1,800-2,200 breeding pairs for the country. On the basis of the implemented studies we estimate the population of the Masked Shrike in Bulgaria to be about 600-800 pairs (best expert opinion).

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5. Povzetek

Avtorja povzemata podatke o statusu zakrinkanega srakoperja *Lanius nubicus* v Bolgariji in predstavljata lastne raziskave kot tudi podatke iz literature za obdobje 1963-1990 in 1991-2005 na bolgarskem zemljevidu s kvadrati UTM. Očitna je širitev gnezditvenega areala te vrste proti severu in zahodu, torej vzdolž reke Marice. Avtorja ocenjujeta, da populacija zakrinkanega srakoperja v Bolgariji šteje med 600 in 800 pari.

6. References

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